AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A virtual storage system for mapping virtual storage segments of differing sizes to storage locations, comprising:

an agent coupled to ~~the~~ a host, the agent having volatile memory for storing a first table, the table having entries to map the virtual storage segments to the storage locations; and

a controller coupled to the agent, the controller having non-volatile memory for storing a second table, the controller intermittently causing contents of the first table to be replaced by contents of the second table,

whereby during an input/output (I/O) operation, the host accesses one of the entries in the first table to determine one of the storage locations.

2. (Original) The system of claim 1, wherein the second table identifies an alternate storage location within the storage locations.

3. (Currently Amended) The system of claim 2, wherein the second table further includes a bitmap ~~that~~ having entries that correspond to blocks of data stored within the alternate storage location.

4. (Original) The system of claim 1, further comprising an alternate storage container comprising alternate storage locations of the storage location correlating to the virtual storage segments.

5. (Original) The system of claim 4, wherein an I/O operation accesses information on both the storage location and the alternative storage location.

6. (Original) The system of claim 5 wherein a bitmap designates blocks at the alternative storage location to use for the I/O operation.

7. (Currently Amended) A system for mapping a virtual disk segment to a storage location within a storage device, such that a host queries said system to determine said storage location for input/output operations, said system comprising:

a first table having a first table entry mapping the virtual disk segment to the storage location;

a second table having a second table entry corresponding to said storage location and to an alternate storage location, and block bitmap information identifying blocks of data having differing sizes within the alternate storage location;

a plurality of variables indicating states of ~~the~~ an entry in the first table or the second table;

an offset for the entry, wherein the offset includes a logic unit number identifier and a block identifier;

a first memory to store the first table; and

a second memory to store the second table.

8. (Original) The system of claim 7, wherein said first memory is a volatile memory.

9. (Original) The system of claim 7, wherein said second memory is a non-volatile memory.

10. (Original) The system of claim 7, wherein the states include a no-write state.

11. (Original) The system of claim 7, wherein the states include an error state.

12. (Currently Amended) A method for performing an input/output operation on a virtual storage segment defined by a first table that maps ~~the~~ a storage segment to a first storage location, the method comprising:

turning off input/output operations at the first storage location;

identifying portions of the virtual storage segment to be effected during ~~the~~ a write operation;

storing a record of the identified portions at a second table and not at the first table; and

writing to a second storage location, whereby the writing operation occurs at portions of the second storage location associated with the identified portions.

13. (Original) The method of claim 12, wherein the turning off step includes activating an invalid state.

14. (Original) The method of claim 12, wherein a subsequent read operation for the virtual segment occur at portions of the first storage location not included in the identified portions and the portions of the second storage location associated with the identified portions.

15. (Original) The method of claim 14, wherein the first table is stored by an agent and during the read operation, the record of the identified portions is sent to the agent.

16. (Original) The method of claim 15, wherein the mapping between the virtual storage segment and first storage location is contained in numerous first tables, each of the first table stored by a different agent.